

ABSTRACT

A method for manufacturing a single crystal semiconductor, in which, in a process of pulling up the single crystal semiconductor from melt for growing it, an impurity is incorporated more uniformly into the single crystal semiconductor so that a variation in impurity concentration across the semiconductor wafer surface can be reduced, and thus, the planarity of the wafer can be improved. In the process of pulling-up the single crystal semiconductor (6), fluctuation in a pulling-up speed is controlled, whereby the variation in concentration of the impurity in the single crystal semiconductor (6) is reduced. Especially, a width of speed fluctuation (ΔV) in 10 seconds is adjusted to less than 0.025 mm/min. Furthermore, in carrying out the control for adjusting the pulling-up speed such that a diameter of the single crystal semiconductor (6) becomes a desired diameter, a magnetic field having strength of 1,500 gauss or more is applied to the melt (5).